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PDN(<04/05/2000) and ((customer or consumer or purchaser or buyer) pre/10 (configure or customize or reconfigure or specification or specify) pre/10 (product or item or equipment)) and (telephone or camera ) and (color or colour ) and shape and (pattern or design)

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## Logistics management at the threshold of the new millenium

*David Pollitt*. International Journal of Physical Distribution & Logistics Management. Bradford: 1998.Vol.28, Iss. 3; pg. 167

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of configuration technology, not only have developments in network communications and the emergence of high performance PCs made it easier to move configuration away from "back office" central systems and out to the sales staff and distributors, but "nomadic" sales staff now have the ability to produce high quality quotations and graphical output "face-to-face" with the customer using powerful multi-media laptops. Also, the emergence of the Internet as a means of global communication is further revolutionizing how information is communicated and how business transactions are conducted. Therefore, although some aspects of configuration (e.g. technical detail) may still be conducted centrally on local area networks (LANs), the desired mechanism for sales configuration may now be through "nomadic" sales staff, remote distributors or by allowing **customers** to self-configure their own products.

For example, for many salespeople, every prospect has different usage requirements for their company's product. In terms of forklift trucks, the variables include materials, loads, height displacements, dry or wet environments and warehouse layouts. Instead of using bulky product catalogs and price lists, and thumbing through the technical detail to try to match the customer's requirements and budget, with a sales-configurator system it becomes possible for the salesperson to simply type the requirements into a laptop. The system will automatically present or select the valid options. The customer can then view his forklift from the illustration library on the portable CD-ROM and get an immediate priced quotation for either purchase or rental. Then, the next time the salesperson "dials into" the headquarters' system, orders and inquiries for the last few days are automatically transferred into the central planning and manufacturing systems, and the latest product options and prices loaded into their PC.

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## Quest for value mix

*Danny C.K. Ho, Eddie W.L. Cheng*. Managing Service Quality. Bedford: 1999.Vol.9, Iss. 3; pg. 204

» [Jump to full text](#) 

(1) Use specifications, which are action-oriented, are designed to fulfill the operating requirements of a product or service desired by customers. Examples of performance specification are the usable life (in terms of hours) of a light tube, the maximum output (in terms of watts) an amplifier can deliver, the shortest time (in terms of minutes) for delivering a fast food order, etc.

(2) Aesthetic specifications, which may not be action-oriented, are designed to fulfil the aesthetic requirements demanded by customers. Examples of aesthetic specifications are **shape**, size, weight, **color**, smell, texture, etc.

Manufacturers or service providers show these specifications to customers through various media and channels. For example, **customers** can read the performance **specifications** printed on the packing of a **product**, from brochure or advertisement, in trade shows, etc.

Customers with similar needs can be grouped together because they have a consistent **pattern** of function requirements. In fact, different customer groups put different degrees of emphasis on the use and aesthetic specifications of a product or service. Differences of customers' functional requirements could be found in the following examples:

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Use specification: a professional sportsman requires a more accurate timer than an ordinary jogger; a professional photographer needs a camera with a detailed control of the aperture, exposure mode and shutter speed, while a family wants a simple "snapshot" camera.

- Aesthetic specification: a teenager may fancy a sweater which has the printed logo of ☐Manchester United, while a senior manager may choose that of ☐Burberry's.

Customers do not evaluate the value of a product or service solely based on its functions

## Connecting with customers

Anonymous. Chief Executive. New York: Feb 2000., Iss. 152; pg. 60, 8 pgs

>> [Jump to full text](#) 

following roundtable discussion held in partnership with ☐Siebel Systems and ☐Andersen Consulting, CEOs explored ways to get beyond the channel conflict posed by e-commerce. It became clear that, in the future, the world will belong to those who place the customers at the center and even allow them to configure their own products or services. Although the Internet dominates the changes these CEOs examine, some, like ☐Siebel's Tom Siebel, insist "this is not a technology issue." As ☐Andersen Consulting's James Hall points out: "Nothing goes away, because customers will jump channels at any given time."

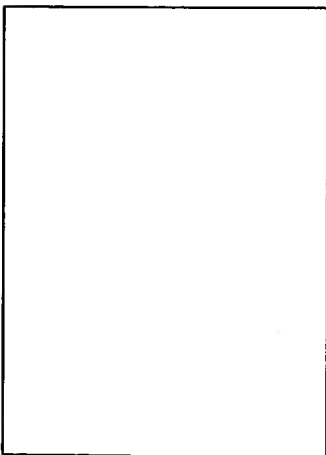
People talk about customer relationship management, but as we go forward we're going to need to talk about customer-managed relationships. The organizations that are successful will not be those which are effective in managing relationships that they choose to have with their customers, but those which will be effective in allowing their customers to drive the relationship. Dell is a great example of a company that has allowed the customer to configure the product and then makes what the customer has configured.

### PRODUCT DESIGN MANAGEMENT

The Design Dynamics team works with OEMs through every phase of product development to help speed products to market. The company employs engineers who specialize in mechanical, industrial, electrical, and software engineering as well as comprehensive prototyping, structural analysis, and plastic and metal fabrication. The company offers more than 20 years direct experience managing technically complex projects ranging from industrial/commercial handheld computers to medical-imaging equipment.

For more information check out [www.design-dynamics.com](http://www.design-dynamics.com)

Design Dynamics Inc, 1653 Merriman Rd., Suite 220, Akron, OH 44313, (330)835-9100.



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## Get the picture?

Charles Pappas. Home Office Computing. Boulder: Jan 1998. Vol.16, Iss. 1; pg. 76, 4 pgs

### ☐ Mattel Inc. **Delivers the Ultimate in Toy Design, Offering Consumers the First-Ever Custom-Made Friend of Barbie Doll Via My Design Web Site**

Entertainment Editors. Business Wire. New York: Nov 4, 1998. pg. 1

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### **Any way you want it: Mass producing customized products is no longer quite the oxymoron it would seem. David Stonehouse reports.; [Final Edition]**

David Stonehouse. The Ottawa Citizen. Ottawa, Ont.: Oct 23, 1999. pg. D.1.FRO

**Corporation** has built up a phenomenally successful business by allowing customers to dial in toll-free or log onto its Web site to order computers with the features they want. They select features including size of the screen, capacity of the hard drive and type of chip that will drive the computer. The orders are then sent by computer to ☐ Dell's production plant in Texas and assembled. Customers can track the progress of their order online right up to when it is shipped to their door.

☐ Levi Strauss and Co. opened a giant four-level store in San Francisco this summer that allows customers to be precisely measured for their jeans by stepping into a high-tech booth that sizes up the body in three-dimensions using beams of light.

"Mass customization has already revolutionized certainly the personal computer industry, the eyewear industry, the college textbook market," says Joseph Pine, a consultant and author.

"Some of the most exciting things in mass customization

## Strategy content and process perspectives revisited

P Rajan Varadarajan. Academy of Marketing Science. Journal. Greenvale: Winter 1999. Vol.27, Iss. 1; pg. 88, 13 pgs

» [Jump to full text](#) 

mass customization, the strategy of offering customers the cost benefit of mass manufacturing and marketing, and the differentiation benefit of customization are becoming a competitive reality and an imperative in a growing number of industries. The success of firms that have excelled in **mass customization**, such as Dell Computers in the personal computer industry and ☐ Matsushita in bicycles, suggests that the simultaneous pursuit of the cost and differentiation advantage could very well be the next competitive frontier. For instance, a recent Fortune article on Dell Computers (which during a recent 3-year period recorded a 53% compounded annual growth in dollar sales, an 89% annual growth in profits, and a 26-fold increase in share price) notes,

Be they in Limerick or Austin, Dell's plants are a remarkable balance between the cost-saving efficiencies of mass production and the value-added process of customization .... An order form follows each PC across the factory floor, starting from when the machine is nothing more than a metal chassis. Drives, chips, and boards are added according to the customer's request. ("Michael Dell Rocks" 1998:66)

An earlier Fortune article ("Japan's New Personalized Production" 1990) sheds insights into how ☐ Matsushita, by using robots and computers, was able to usher an era of customized manufacturing that allows a customer to choose from more than 11

million variations of bicycles. Although production does not start until a customer places an order, it is amazingly swift thereafter, with computeraided design (CAD) creating a custom blueprint for a custom bike in 3 minutes. Manufacturing a custom bike takes 3 hours compared to 90 minutes for a mass-produced model. Within 2 weeks, the customer is riding a one-of-a-kind machine. Part of the 2-week wait is deliberate-to make the customer feel excited about waiting for something special. With 20 employees and a computer capable of design work, the factory is ready to produce any of more than 11 million variations on 18 models of racing, road, and mountain bikes in 199 color patterns and as many sizes as there are people.

Camera

content for the intended customer. This customization might add value for the paying customer while subtracting value for other persons who have different needs and preferences. Indeed, mass customization may well turn out to be a new paradigm for many industries in the 21<sup>st</sup> century (see Rosemary Coates, "Mass Customization--Manufacturing Postponement for the Next Century," Computer Sciences Corporation White Paper, 1997).

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Hibbard, Justin, (Apr. 12, 1999), Assembly Online: The Web is changing mass production into mass customization, Information Week Online: News and Reviews (Online) Available Web Site: [www.informationweek.com/729/build.htm](http://www.informationweek.com/729/build.htm); Accessed on: Oct. 30, 2001.





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## Mass customization and the changing logistics of manufacturing

Anonymous. Chief Executive. New York: Nov-Dec 1993., Iss. 90; pg. 62, 11 pgs

» [Jump to full text](#) 

success stories have been well-documented: In Germany, luxury automobile manufacturers BMW and Mercedes-Benz have pioneered the so-called individual car, in Japan, there's Toyota and National Bicycle. Stateside, even the dowdy descendants of Ma Bell have crashed to scene with customized products such as call-waiting, call forwarding, and automatic dial-back.

But the champion of mass customization in the U.S. is  Motorola, winner of the 1988 Malcolm Baldrige National Quality Award. In the mid-1980s, the diversified electronics company was one of five or six makers of pagers in the U.S. But today it is the only maker to have survived price wars with giant Japanese firms. The secrets to its success include faster cycle times, adherence to Six Sigma quality standards, and being able to predict and prevent defects before they happen. But most important,  Motorola produces competitively priced pagers in relatively small batches, or "lots." (Lot size is perhaps the most widely accepted measure of mass customization muscle--the smaller the better.)  Motorola's pager are available in vibrant colors such as Bimini Blue and Vibra Pink. Plainer versions slip into cloth sleeves, in teal, fuchsia, and silver that coordinate with a wearer's apparel. Alphanumeric pagers can display stock prices and news flashes, and the company is testing a pager that can store voice messages. The payoff:  Motorola has garnered a mammoth 85 percent share of the U.S. market.

Profitability remains the pot at the end of the

## Implications of mass customization for operations management An exploratory survey

Par Ahlstrom. Roy Westbrook. International Journal of Operations & Production Management. Bradford:

Literature in the area seems to assume that it is personal consumers who have the highest desire for customized products. Cases of consumer goods are frequently featured in the literature, for example **bicycles** (Kotha, 1995; Westbrook and Williamson, 1993), personal computers (Feitzinger and Lee, 1997), and insurance (Martin, 1993). The survey results indicate that mass customization is not necessarily linked exclusively with consumer goods. Our respondents came from a variety of different industries. Although this is likely to be a reflection of the way in which the sample was chosen, it does indicate that mass customization is not a reality only for companies selling to personal consumers. A majority of companies in our sample sold their products to other businesses.

## Mass Customization vs. Mass Production: Variety and Price Competition

*Aydin Alptekinoglu*. Manufacturing & Service Operations Management. Linthicum: Winter 2004.Vol.6, Iss. 1; pg. 98, 6 pgs

The business press provides many examples of customization: multivitamins (Acumins), industrial detergents (ChemStation), pants and shirts (☐Lands' End), lighting systems (Lutron), **bicycles** (National **Bicycle**), sneakers (☐Nike), beauty-care products (☐Procter & Gamble's Reflect.com), golf clubs (TaylorMade), messenger bags (Timbuk2), plastic food containers (Ultra Pac), and candles (☐Yankee Candle). This list is by no means exhaustive, but reflects the diversity of industries in which customization is gaining ground.

Fortune article ("Japan's New Personalized Production" 1990).

# FORTUNE

## Japan's New Personalized Production

Fortune. New York: Oct 22, 1990.Vol.122, Iss. 10; pg. 132, 3 pgs

Subjects: Manufacturing, Custom design, Case studies, CAD, Bicycles, Robots, Computer aided design, Company profiles

Classification Codes: 9179 Asia & the Pacific, 9110 Company specific/case studies, 8600 Manufacturing industries

Locations: Japan

Companies: National Bicycle Industrial Co

Publication title: Fortune. New York: Oct 22, 1990. Vol. 122, Iss. 10; pg. 132, 3 pgs

Source type: Periodical

ISSN/ISBN: 00158259

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### Abstract (Document Summary)

The National Bicycle Industrial Co., a subsidiary of electronics giant ☐Matsushita, makes bikes under the Panasonic brand. It builds one-of-a-kind models by replacing mass production with flexible manufacturing. The method is being employed all over Japan to shrink small-lot production jobs to lots of one. Robots, computers, and people work together to turn production on a

dime. Most important, the system puts the consumer at the beginning rather than at the end of the process, starting with the individual order rather than with gross production targets. With only 20 employees and a computer capable of design work, National Bicycle's factory is ready to produce any of 11,231,862 variations on 18 models of racing, road, and mountain bikes in 199 color patterns and about as many sizes as there are people. Production does not start until a customer places an order. Computer-aided design (CAD) facilitates the process by creating blueprints for each bike that would normally take a drafter 60 times as long to make.

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Mark Document

13 documents found for: *(bicycle) AND TITLE(mass customization)*


58 documents found for: *PDN(<04/05/2000) and (mass pre/1 customization) and (web or internet or www) and cameras*

## TechniCon Supplies Product Specification Technology for Visio Technical 5.0 Plus

*Business Editors/High-tech Writers.* Business Wire. New York: Apr 9, 1999. pg. 1

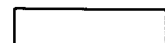
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Using the Equipment Selector portion of Visio Technical 5.0 Plus, facility managers and interior designers can now quickly narrow their product search and generate a list of products that conform to specific attributes such as price range, size, material, number of drawers, etc. User can also search by part numbers. These features allow them to quickly generate detailed inventory lists. The Equipment Selector also includes detailed 2D images that provide accurate visualization of selected products.

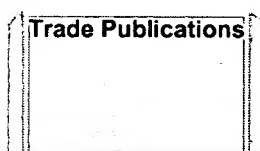
TechniCon also supplied a specially designed database representing Steelcase 9000 Series furniture products, the best-selling office furniture systems. As a result, Visio Technical users can easily drag and drop  Steelcase-specific furniture shapes into their space planning layouts and then change the configuration of products as needed. The database also incorporates pricing information allowing users to instantly generate **cost estimates**. These estimates can later be exported as Standard Interchange Format (SIF) files, which can be integrated with a furniture dealer's business system and then forwarded on to the manufacturer, thus fully completing the supply chain.

About Visio Technical -- Facilities Management Solution

4 documents found for: *PDN(<04/05/2000) and (mass pre/1 customization) and (web or internet or www) and (specification ) and barbie*



[About](#)





1. E-tailing: They'll never buy apparel on-line, right?  
*Suzette Hill. Apparel Industry Magazine. Atlanta: Sep 1999. Vol. 60, Iss. 9; p. 26 (7 pages)*

☐ Text+Graphics

☐ Page Image - PDF

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2. Customization nation  
*Ari Zeiger. Incentive. New York: May 1999. Vol. 173, Iss. 5; p. 35 (4 pages)*

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3. Mattel Inc. Delivers the Ultimate in Toy Design, Offering Consumers the First-Ever Custom-Made Friend of Barbie Doll Via My Design Web Site  
*Entertainment Editors. Business Wire. New York: Nov 4, 1998. p. 1*

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☐ Abstract



4. The customized, digitized, have-it-your-way economy  
*Erick Schonfeld. Fortune. New York: Sep 28, 1998. Vol. 138, Iss. 6; p. 114 (7 pages)*

☐ Full text

☐ Abstract

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